

WHAT IS CLAIMED IS:

1. An information processing system including:
 - a first information processing apparatus having a
5 first communication port for transmitting and receiving data;
 - a second information processing apparatus having a second communication port for transmitting and receiving data; and
 - 10 a communicating portion for executing bi-directional communication between the first communication port and the second communication port, the information processing system comprising:
 - a utilizing portion for utilizing the communicating
15 portion, for communication in a direction for which a first application program run on the first information processing apparatus sets the first communication port and the second communication port respectively as the sender and the destination of data; and
 - 20 a utilizing portion for utilizing the communicating portion, for communication in a direction for which a second application program run on the second information processing apparatus sets the second communication port and the first communication port respectively as the sender
25 and the destination of data.
2. A storage system including:

a first storage device controller connected to a first storage device;

a second storage device controller connected to a second storage device;

5 a first communication port that the first storage device controller has for transmission and reception of data;

a second communication port that the second storage device controller has for transmission and reception of data; and

10 a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and having:

15 a function for writing the data to be written to the first storage device also to the second storage device, the storage system comprising:

a utilizing portion for utilizing the communicating portion, for communication in a direction for which a first application program run on the first information processing apparatus sets the first communication port and the second communication port respectively as the sender and the destination of data; and

25 a utilizing portion for utilizing the communicating portion, for communication in a direction for which a second application program run on the second information processing apparatus sets the second communication port

and the first communication port respectively as the sender and the destination of data.

3. A storage system according to claim 2, wherein the
5 utilizing portion for utilizing the communicating portion,
for communication in a direction for which a first
application program run on the first storage device
controller sets the first communication port and the second
communication port respectively as the sender and the
10 destination of data includes:

a storing portion for storing in the first storage
device controller communication direction defining
information in which the first application program run
on the first storage device controller sets the first
15 communication port and the second communication port
respectively as the sender and the destination of data,
and for utilizing the communicating portion for
communication in the direction defined in the information;
and

20 a utilizing portion for utilizing the communicating
portion, for communication in a direction for which a
second application program run on the second storage device
controller sets the second communication port and the
first communication port respectively as the sender and
25 the destination of data includes:

a utilizing portion for utilizing the communicating
portion for communication in a direction for which the

second application program run the second storage device controller exchanges the communication ports allocated respectively as the sender and the destination of the communication direction defining information.

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4. A storage system according to claim 2 further comprising:

a relating portion for relating a first storage area set logically in a storage area provided by the first storage device and a second storage area set logically in a storage area provided by the second storage device respectively to the duplication source and the duplication destination of data, and for writing the data to be written to the first storage area, also to the second storage area; and

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a relating portion for relating the second storage area and the first storage area respectively to the duplication source and the duplication destination, and for writing the data to be written to the second storage area, also to the first storage area.

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5. A first information processing apparatus in an information processing system including:

the first information processing apparatus having a first communication port for transmitting and receiving data;

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a second information processing apparatus having a

second communication port for transmitting and receiving data; and

a communicating portion for executing bi-directional communication between the first
5 communication port and the second communication port,
the first information processing apparatus comprising:

a utilizing portion for utilizing the communicating
portion, for communication in a direction for which an
10 application program run on the first information
processing apparatus sets the first communication port
and the second communication port respectively as the
sender and the destination of data.

15 6. A second information processing apparatus in an
information processing system including:

a first information processing apparatus having a
first communication port for transmitting and receiving
data;

20 the second information processing apparatus having
a second communication port for transmitting and receiving
data; and

a communicating portion for executing
bi-directional communication between the first
25 communication port and the second communication port,
the second information processing apparatus comprising:

a utilizing portion for utilizing the communicating

portion, for communication in a direction for which an application program run on the second information processing apparatus sets the second communication port and the first communication port respectively as the sender and the destination of data.

7. A first storage device controller in a storage system including:

the first storage device controller connected to a first storage device;

a second storage device controller connected to a second storage device;

a first communication port that the first storage device controller has for transmission and reception of data;

a second communication port that the second storage device controller has for transmission and reception of data; and

a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and having:

a function for writing the data to be written to the first storage device also to the second storage device, the first storage device controller comprising:

a utilizing portion for utilizing the communicating portion, for communication in a direction for which an

application program run on the first storage device controller sets the first communication port and the second communication port respectively as the sender and the destination of data.

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8. A storage device controller according to claim 7, wherein the utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the first storage device controller sets the first communication port and the second communication port respectively as the sender and the destination of data includes:

a storing portion for storing in the first storage device controller communication direction defining information in which the application program run on the first storage device controller relates the first communication port and the second communication port respectively to the sender and the destination of data, and for utilizing the communicating portion for communication in the direction defined in the information.

9. A storage device controller according to claim 7 further comprising:

a relating portion for relating a first storage area set logically in a storage area provided by the first storage device and a second storage area set logically in a storage area provided by the second storage device

respectively to the duplication source and the duplication destination of data, and for writing the data to be written to the first storage area also to second storage area.

- 5 10. A second storage device controller in a storage system including:

a first storage device controller connected to a first storage device;

- 10 the second storage device controller connected to a second storage device;

a first communication port that the first storage device controller has for transmission and reception of data;

- 15 a second communication port that the second storage device controller has for transmission and reception of data; and

- 20 a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and having:

a function for writing the data to be written to the first storage device also to the second storage device, the second storage device controller comprising:

- 25 a utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the second storage device controller sets the first communication port and the second

communication port respectively as the sender and the destination of data.

11. A storage device controller according to claim 10,
5 wherein the utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the second storage device controller sets the second communication port and the first communication port respectively as the sender
10 and the destination of data includes:

a storing portion for storing in the second storage device controller communication direction defining information in which the application program run on the second storage device controller relates the second
15 communication port and the first communication port respectively to the sender and the destination of data, and for utilizing the communicating portion, for communication in the direction defined in the information.

20 12. A storage device controller according to claim 10 further comprising:

a relating portion for relating a first storage area set logically in a storage area provided by the first storage device and a second storage area set logically
25 in a storage area provided by the second storage device respectively to the duplication source and the duplication destination of data, and for writing the data to be written

to the second storage area also to the first storage area.

13. A computer-readable medium containing a computer
program software for causing an information processing
5 system including:

a first information processing apparatus having a
first communication port for transmitting and receiving
data;

a second information processing apparatus having a
10 second communication port for transmitting and receiving
data; and

a communicating portion for executing
bi-directional communication between the first
communication port and the second communication port,
15 to execute the steps of:

utilizing the communicating portion, for
communication in a direction for which the first
communication port and the second communication port are
respectively set as the sender and the destination of
20 data; and

utilizing the communicating portion, for
communication in a direction for which the second
communication port and the first communication port are
respectively set as the sender and the destination of
25 data.

14. A computer-readable medium containing a computer

program software for causing a storage system including:

a first storage device controller connected to a first storage device;

5 a second storage device controller connected to a second storage device;

a first communication port that the first storage device controller has for transmission and reception of data;

10 a second communication port that the second storage device controller has for transmission and reception of data; and

a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and having:

a function for writing the data to be written to the first storage device also to the second storage device, to execute the steps of:

20 utilizing the communicating portion, for communication in a direction for which the first communication port and the second communication port are respectively set as the sender and the destination of data; and

25 utilizing the communicating portion, for communication in a direction for which the second communication port and the first communication port are respectively set as the sender and the destination of

data.

15. A computer-readable medium containing the computer
program software according to claim 14, wherein the step
5 of utilizing the communicating portion, for communication
in a direction for which the first communication port
and the second communication port are respectively set
as the sender and the destination of data includes a step
of storing in the first storage device controller
10 communication direction defining information in which
the first communication port and the second communication
port are respectively related to the sender and the
destination of data, and utilizing the communicating
portion for communication in the direction defined in
15 the information and wherein

the step of utilizing the communicating portions,
for communication in a direction for which the second
communication port and the first communication port are
respectively set as the sender and the destination of
20 data includes a step of utilizing the communicating portion,
for communication in a direction for which the
communication ports allocated respectively as the sender
and the destination of the communication direction
defining information are exchanged with each other.

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16. A computer-readable medium containing a computer
program software according to claim 14 comprising the

steps of:

utilizing the communicating portion, for
communication in a direction for which the first
communication port and the second communication port are
5 respectively set as the sender and the destination of
data;

relating a first storage area set logically in a
storage area provided by the first storage device and
a second storage area set logically in a storage area
10 provided by the second storage device respectively to
the duplication source and the duplication destination
of data, and writing the data to be written to the first
storage area, also to the second storage area;

utilizing the communicating portion, for
15 communication in a direction for which the second
communication port and the first communication port are
respectively set as the sender and the destination of
data; and

relating the second storage area and the first storage
20 area respectively to the duplication source and the
duplication destination of data, and writing the data
to be written to the second storage area, also to the
first storage area.